

## CHAPTER 20

# Emotional Intelligence

## Reconceptualizing the Cognition–Emotion Link

*Marc A. Brackett, Michelle Bertoli, Nicole Elbertson, Elise Bausseron, Ruth Castillo, and Peter Salovey*

Historically, cognition and emotion were viewed as oppositional processes (Lloyd, 1979), an idea infused into the Western worldview by the stoics of Ancient Greece (Lyons, 1999). As recently as the middle of the 20th century, scholars warned that emotions were mentally destabilizing forces (Young, 1943) that prevented logical reasoning (Lefford, 1946). Formalizing the ways in which emotion and thought could work in concert was no small feat—it required overcoming centuries of collective wariness toward “the passions.”

Beginning in the late 1970s, a conceptualization of emotion and cognition as interactive forces began to take shape. Increasing frustration with the inability of IQ to explain differences among individuals led to the development of “elasticized” theories of intelligence, including Gardner’s multiple intelligence theory (1983/1993) and Sternberg’s triarchic theory of intelligence (1985). At the same time, investigators began to examine the impact of moods and emotions on thought processes. Isen, Shalcker, Clark, and Karp (1978), for instance, proposed the existence of a “cognitive loop” between mood and judgment. Bower (1981) demonstrated that positive and negative feelings could activate positive and negative memories. It was in this context that the concept of emotional intelligence (EI) emerged.

EI was first introduced to the scientific literature in 1990 by psychologists Salovey and Mayer. They defined EI as “the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (p. 189). They proposed that emotions facilitate cognitive processes and demonstrated empirically how aspects of EI might be measured as a mental ability.

In the wake of Salovey and Mayer’s initial conceptualization of EI, myriad interpretations of the construct were proposed in both academic and popular literatures. The year 1995 saw the popularization of EI with the international success of Goleman’s book, *Emotional Intelligence: Why It Can Matter More Than IQ*. His book quickly captured the interest of the media and the general public and resonated powerfully in education and management circles (Mayer, Salovey, & Caruso, 2000). Goleman’s (1995, 1998) discourse, often criticized for embracing claims not rooted in research (e.g., Lindebaum, 2009), extended EI well beyond its initial definition. Goleman described EI as an array of traits and dispositions such as self-confidence, optimism, adaptability, and achievement motivation that could account for significant aspects of work performance and success in life.

Today the field of EI is replete with varying definitions, claims, and measurement tools. Many scholars lament that conflicting interpretations have engendered confusion and controversy with regard to what exactly EI is and is not, and what it can and cannot predict (e.g., Daus & Ashkanasy, 2003; Mayer, Salovey, & Caruso, 2008; Zeidner, Roberts, & Matthews, 2004). In this chapter we briefly outline the definitional and measurement issues that have arisen around different conceptions of EI, and then explore the applications of EI, in theory and in practice, in workplace and educational settings.

## Models and Measurement of EI

Four primary models of EI exist today (Cherniss, 2010): the Mayer–Salovey ability or four-branch model (Mayer & Salovey, 1997; Salovey & Mayer, 1990), the Bar-On model of emotional–social intelligence (Bar-On, 2006), the Boyatzis–Goleman model (Boyatzis & Sala, 2004), and the trait EI model (Petrides & Furnham, 2003). These models are categorized into two scientific approaches: ability models and mixed models (Mayer, Caruso, & Salovey, 2000). Proponents of ability models have traditionally supported the use of performance measures to assess EI, whereas advocates of mixed models have preferred self-report or multi-rater assessment methods. The models and their associated approaches to measurement are described briefly below. (For a more thorough discussion of EI models and measures, including psychometrics, please see Mayer, Roberts, & Barsade, 2008.)

### The Four-Branch Ability Model and Performance Assessments

Mayer and Salovey's model of EI conceives of the construct as a set of four mental abilities, also referred to as branches: (1) perception of emotion, (2) use of emotion to facilitate thought, (3) understanding of emotion, and (4) management of emotion. These four abilities are arranged hierarchically, with perception of emotion at the base of the model and management of emotion at the top. Here, we give an overview of the four abilities.

### Perception of Emotion

This branch of EI refers to the accuracy with which individuals can identify emotions in themselves and others through facial expressions, tone of voice, and body language, as well as in abstract objects, such as works of art. Those skilled in the perception of emotion are able to express emotion appropriately and to articulate emotional needs adaptively. They also are able to determine the authenticity of the emotions expressed by others. Perception of emotion is the foundational skill of the four-branch model of EI.

### Use of Emotion to Facilitate Thinking

The ability to use emotion to enhance cognitive activities and to guide attention to salient environmental cues falls under the second branch. People who are skilled in using emotions to facilitate thought understand that certain emotions are relevant to specific tasks or goals. Thus, they may generate moods to support certain types of thinking or to communicate more effectively with others.

### Understanding of Emotion

The third branch of EI involves correctly labeling emotions experienced by oneself and others, and understanding how emotions differ from one another. Understanding emotion also involves an awareness of the causes and trajectories of different emotions (e.g., sadness results from a loss; unattended irritation may escalate into anger and then fury). People who are skilled in understanding emotion also are aware of how multiple emotions can “blend” to produce another; for instance, anger and disgust combine to form contempt. Research has shown that being able to label discrete negative emotions correctly can lead to the selection of effective emotion management strategies (Feldman Barrett, Gross, Christensen, & Benvenuto, 2001).

### Management of Emotion

The fourth branch of EI describes more complex emotional processes. Individuals skilled in emotion management are able to

remain open to both pleasant and unpleasant emotions. They also are able to recognize the value of feeling certain emotions in specific situations, and to understand which short- and long-term strategies work best for enhancing or reducing particular emotions (see Gross, 1998). Emotion regulation efforts benefit from developed skills on the other three branches of EI.

The authors of the ability model have illustrated that EI meets the criteria for a standard intelligence in that it can be operationalized as a set of abilities that (1) are intercorrelated, (2) relate to other extant intelligences, and (3) develop with age and experience (Mayer, Caruso, & Salovey, 1999; Mayer, Salovey, Caruso, & Sitarenios, 2003). As such, the authors assert that EI is a construct best measured by performance assessments requiring respondents to solve emotion-related problems that have correct answers, such as the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, & Caruso, 2002). The MSCEIT is a 141-item test comprised of a total of eight tasks. Each of the four emotion abilities is measured with two tasks. Unlike self-report measures of EI, the MSCEIT does not ask respondents to rate their emotion skills; rather, the test asks them to *demonstrate* these skills. For example, emotion management is assessed by the test taker's ability to identify the effectiveness of various emotion management strategies to achieve a specified intrapersonal goal in a given situation (e.g., reducing an unpleasant emotion). Respondents read a short, emotionally charged vignette and then evaluate the effectiveness of four different courses of action to cope with emotions in the story. A comprehensive review of the MSCEIT and other performance assessment tools is available elsewhere (see Rivers, Brackett, Salovey, & Mayer, 2007).

### **Mixed and Trait Models and Self-Report Assessments**

Mixed models of EI are so called because they define EI broadly as a combination of mental abilities and traditional personality traits and dispositions such as optimism, motivation, and stress tolerance (see Cherniss, 2010, for a review). The two

mixed models that have garnered the most attention are the Boyatzis–Goleman model (Boyatzis & Sala, 2004) and the Bar-On model of emotional–social intelligence (Bar-On, 2006). The Boyatzis–Goleman model divides EI competencies into four groups that the authors assert are particularly important for success in the workplace: self-awareness, self-management, social awareness, and relationship management. The Bar-On model proposes five main components of EI: intrapersonal skills, interpersonal skills, adaptability, stress management, and mood.

The trait EI model (Petrides & Furnham, 2003) is another proposed alternative to the Mayer–Salovey ability model. This model offers a framework that encompasses all of the personality traits that share intimate connections with affect (Mikolajczak, Luminet, Leroy, & Roy, 2007). For instance, individuals who are considered to be cheerful, confident, reflective, and driven, among other things, would ostensibly score highly on trait EI. The developers of this model argue that emotions are subjective, and so models of EI should be broad enough to capture accurately the essence of this subjectivity. Not surprisingly, highly significant correlations have been reported between trait EI and other personality traits, but only modest ones, often nonsignificant, between trait EI and ability measures of EI (Petrides, Furnham, & Mavroveli, 2007).

The measurement methods associated with mixed and trait models are mainly self-report assessments. Others are multi-rater scales (e.g., the Emotional Competence Inventory [ECI]; Sala, 2002) that combine various external observers' (e.g., work associates, family members) assessments of an individual's EI into one overall score. Self-report measures have some advantages. For instance, they are relatively quick, easy, and inexpensive to administer. However, they are problematic in that they are vulnerable to social desirability biases and faking (Day & Carroll, 2008) as well as to respondents' inaccurate judgments of their own abilities (e.g., Paulhus, Lysy, & Yik, 1998). Self-report measures of EI also have been found to lack discriminant validity from existing personality measures (Brackett & Mayer, 2003; Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006). Mayer and colleagues (2008) note that some of the scales associ-

ated with mixed models do have good reliability, standardization, and factorial validity, but only as measures of *other* constructs, not as measures of EI as a mental ability.

### Which Model?

The authors of the Mayer–Salovey model have noted that the EI construct is threatened less by its critics than by those who apply the term haphazardly to a variety of other variables (Mayer, Salovey, & Caruso, 2008). Although the personality and dispositional attributes targeted by the mixed and trait models certainly are important, they should not be confused with EI, a discrete and measurable mental ability. EI, when conceptualized as an ability, elucidates the relationship between cognition and emotion in a meaningful way—one that accounts for variance in individual outcomes beyond what can be explained by cognitive intelligence or personality traits alone (e.g., O’Boyle, Humphrey, Pollack, Hawver, & Story, 2010).

By assessing EI as a construct distinct from personality traits, as the ability model does, we can better understand its unique impact on important outcomes and more easily target the skills that improve these outcomes. Because the ability model, with its associated performance measures, assesses an information-processing capacity that is distinct from other measures of personality, we assert that it is preferable to the mixed and trait models of EI. Furthermore, self-estimates of performance measures are found to correlate only weakly ( $r = .19$ ) with actual performance (Brackett et al., 2006). For these reasons, the rest of this chapter focuses on ability EI and the ways in which it applies in professional and academic settings.

### EI in Applied Settings

Since the popularization of EI in the mid-1990s, interest in the real-world applications and implications of the construct has flourished. Researchers have examined—and found positive links between—EI and a number of important outcomes for individuals across the lifespan, including work performance, mental and physical health, social relationships, and academic achievement.

The next sections of the chapter describe in greater detail how ability EI functions in both organizational and educational settings to improve adjustment, performance, and well-being.

### EI in the Workplace: An Affective Revolution

Until recently, the organizational behavior literature has neglected to consider seriously the role of emotion in the workplace (e.g., Ashforth & Humphrey, 1995; George, 2000). Emotions traditionally have been perceived as too unpredictable and interfering to warrant reflection outside the personal sphere. It has been asserted, however, that an “affective revolution” is underway in organizational behavior research (Barsade, Brief, & Spataro, 2003). As such, it is proposed that emotions permeate all levels of an organization and critically influence strategic decision making, creativity, prosocial behavior, successful negotiation, productivity, efficiency, and task quality and performance (e.g., Ashton-James & Ashkanasy, 2008; Mayer, Roberts, & Barsade, 2008).

This shift in understanding about the influence of emotions in the workplace arose from findings highlighting the role affect plays in cognitive functioning, and the effect that this connection may have on many work-related outcomes (Forgas & George, 2001). Affective events theory (Weiss & Cropanzano, 1996) and the affect infusion model (Forgas, 1995; also see Forgas & Koch, Chapter 13, this volume) both shed light on the mechanisms by which affect influences cognition and performance in organizations. The affective events theory posits that events that occur at work trigger emotional responses in employees, which, in turn, impact employees’ performance, job satisfaction, and attitudes (Weiss & Cropanzano, 1996). An empathic boss, for instance, may recognize accomplishments and facilitate access to resources, leading to feelings of empowerment and competence among employees and, in turn, increased performance and satisfaction. This event–response relationship is hypothesized to be moderated by individual employees’ overall affective tendencies and personality traits.

Based on empirical evidence (e.g., Forgas & Moylan, 1991), the affect infusion model

asserts that the influence of affect on information processing becomes increasingly determinative as tasks or decisions grow in complexity. According to this theory, managers who engage in strategy development that is risky, highly complex, and that demands an advanced level of information analysis (Ashton-James & Ashkanasy, 2008) will harness affective experiences to make decisions that require heuristic or substantive reasoning (Forgas, 1995). This model suggests that the ability to recognize and regulate affective experiences has a direct impact on tough decisions made at work. Taken together, these theories and their associated research emphasize that emotional experiences at work cannot be ignored; in fact, they can be leveraged to produce better results within the organization as a whole.

Numerous studies have been conducted on the relationship between EI and various workplace outcomes. Evidence related to three of these outcomes—job performance, occupational well-being, and leadership effectiveness—is presented here.

### EI and Job Performance

A number of laboratory and field-based studies have examined the link between EI and job performance. In one study, EI was associated with important indicators of job performance, including company rank, percent merit increase, ratings of interpersonal facilitation, and affect and attitudes at work (Lopes, Grewal, Kadis, Gall, & Salovey, 2006). EI also has been found to correlate positively with performance in a variety of managerial simulations involving problem solving, determining employee layoffs, adjusting claims, and negotiating successfully (Day & Carroll, 2004; Feyerherm & Rice, 2002; Mueller & Curhan, 2006). Côté and Miners (2006) proposed and tested a “compensatory model” of ability EI, cognitive intelligence, and performance at work, wherein they hypothesized that, as cognitive intelligence decreased, the association between EI and job performance would become more positive. Their results supported this hypothesis: Employees with lower cognitive intelligence performed tasks correctly (as assessed by managers) when they had higher EI. Most of these studies

controlled for personality and general intelligence.

Emotion regulation ability appears to be another key to understanding how EI impacts job performance (O’Boyle et al., 2010). Of course, successfully regulating emotion depends, in great measure, on one’s ability to accurately perceive and understand emotions in the self and others (see Joseph & Newman, 2010, for an explanation of “the cascading model of EI,” which aligns with the conceptualization of EI skills as hierarchical). Although we cannot consider emotion regulation ability completely apart from other EI skills, it is arguably the skill that we most easily see affecting job performance.

Service-oriented jobs provide a particularly good illustration of the impact of emotion regulation ability on job performance. We tend to expect a specific emotional timbre from individuals in service positions, and the expected tone can vary depending on the service or good that is sought. For example, we generally would not be pleased with a funeral director who was too animated and enthusiastic, but would appreciate one who was sympathetic and reserved. Expressing the emotion deemed necessary for a successful service interaction is called *emotional labor* (Hochschild, 1979). It is not difficult to imagine that someone higher in EI would likely be better able both to understand the need for the particular affective display and to regulate the other, potentially conflicting, emotions felt in order to evoke—or at least produce the facial and bodily indications of—the target emotion. Indeed, recent meta-analyses (Joseph & Newman, 2010; O’Boyle et al., 2010) have found that ability EI has incremental validity over personality and cognitive ability for predicting success in jobs with high emotional labor demands.

Another potential explanation for EI’s link to job performance has to do with the allocation of cognitive resources. According to neurological measures, individuals higher in EI exert less effort when solving emotional problems (Jausovec & Jausovec, 2005). Specifically, brain scans of individuals high in EI showed more synchronization and less desynchronization while identifying emotions in pictures than did individuals with average EI. According to the authors, this finding indicates that individuals higher in EI use superior emotion problem-solving



strategies that require less cognitive energy. If less energy is expended solving problems related to emotion, more cognitive resources should be available to devote to the completion of tasks. However, this relationship is not simple. It has been argued that, in itself, the process of regulating emotions drains cognitive resources, making task performance more difficult (Joseph & Newman, 2010). For instance, suppression and rumination draw largely upon cognitive resources and impede the processing of incoming information. On the contrary, reappraisal and acceptance are helpful strategies that allow an individual to return attention more quickly to the task at hand (Gross, 1998; see Suri, Sheppes, & Gross, Chapter 11, and Watkins, Chapter 21, this volume, for further discussion of emotion regulation and repetitive thought). More emotionally intelligent individuals actually choose more effective emotion regulation strategies (Ciarrochi, Chan, & Caputi, 2000). Thus, it is reasonable to imagine that EI skills can improve job performance by contributing to the more strategic allocation of cognitive resources.

### EI and Occupational Well-Being

Evidence indicates that EI impacts how individuals perform at work, but does it influence how they *feel* at work? Interest in occupational well-being has increased as the impacts of job-related stress have become better understood. Stress at work has been found to trigger many negative outcomes, including aggressive behaviors (Miguel-Tobal & Gonzales Ordi, 2005). This is true especially for emotionally vulnerable individuals who experience long-term, repeated exposure to workplace stressors (Fisher, 2000). EI, and particularly emotion regulation ability, have been argued to bolster resilience and to protect individuals against engaging in risky behaviors (Ciarrochi, Chan, & Bajgar, 2001; Rivers et al., in press) when pressures, work-related or otherwise, build. EI may not only mitigate the harmful effects of work-related stress, it also may facilitate the achievement of emotional well-being (Schutte, Malouff, Simunek, McKenley, & Hollander, 2002). According to EI theory, people with higher EI have a larger “inventory” of strategies for main-

taining desirable emotions and preventing or changing unwanted emotions in themselves and others (Gross & John, 2002; Mayer & Salovey, 1997). Indeed, MSCEIT scores correlate negatively with depression, anxiety, burnout, and stress, and positively with self-esteem and job and life satisfaction (Brackett et al., 2006; Ciarrochi et al., 2000).

### EI and Leadership Effectiveness

Employees can benefit not only from their own exercise of emotion regulation strategies, but also from the practices of leaders with high EI who nurture emotional well-being in the workplace (Humphrey, 2002). Many experts in the field of organizational behavior are gravitating toward a conception of leadership as a process of social interactions whereby leaders motivate, influence, guide, and empower followers to achieve organizational goals (e.g., Bass & Riggio, 2006). Transformational leadership (Bass, 1985), a leading articulation of this management style, is characterized by creating a vision and then inspiring others to work toward it. This leadership style is understood in some measure of contrast to transactional leadership, in which leaders offer something followers want in exchange for the successful completion of tasks (Kuhnert & Lewis, 1987).

The use of transformational methods has been shown to predict business-unit performance positively and significantly (Howell & Avolio, 1993). What is more, EI appears to facilitate transformational leadership. In a sample of 24 managers, EI (as measured by the MSCEIT) correlated positively with the *idealized influence* and *individual consideration* dimensions of transformational leadership (Leban & Zulauf, 2004). A study of 177 managers from a U.S.-based global corporation found that the facial recognition scores in the Diagnostic Analysis of Nonverbal Accuracy Scale (Nowicki & Duke, 1994), which are similar to the *perception of emotion* branch of the MSCEIT, correlated with transformational leadership as rated by 480 subordinates (Rubin, Munz, & Bommer, 2005).

Additional research—including a meta-analysis of 48 studies (Mills, 2009)—has supported a positive link between EI and effective leadership. Managers’ EI scores

have been found to correlate positively with supervisees' ratings of overall managerial performance (Kerr, Garvin, Heaton, & Boyle, 2006) and with subordinates', peers', and direct supervisors' assessments of managers' successful achievement of business goals and effective interpersonal behaviors (Rosete, 2007). Among 41 Australian executives, scores on the *perception of emotion* and *use of emotion* branches of the MSCEIT correlated with their ability to cultivate productive relationships with others and to display greater personal drive and integrity (Rosete & Ciarrochi, 2005). The associations in the above three studies range from  $r = .26$  to  $.52$ . With the exception of the study by Kerr and colleagues (2006), the correlations reported remained statistically significant after controlling for cognitive ability and personality. Additional research found that EI predicted leadership emergence in groups after controlling for cognitive ability, personality, and gender (Côté, Lopes, Salovey, & Miners, 2010).

### Enhancing EI in the Workplace

It is clear that EI has utility for effecting positive outcomes at work, but how can organizations enhance the EI of their members? Like "traditional" intelligence, EI is not necessarily malleable enough that reading one or two books or attending a workshop on the topic can promise to change an individual's competencies dramatically. However, in that EI is a set of four abilities that include targetable skills (e.g., the ability to perceive emotion can be enhanced by building an emotions vocabulary to increase expressive capacities), it is probable that an individual's emotion knowledge base can be expanded and that useful approaches to dealing with emotions at work can be taught and successfully learned.

The EI Skills Group—headed by one of the three authors of the MSCEIT (Caruso)—has led efforts to bring training on the ability model of EI to organizations across the globe. These trainings target everyone from entry-level employees to top decision makers and consist of assessing EI with the MSCEIT, illustrating how EI skills function in the workplace, and teaching specific methods for developing and then applying EI skills. At this time, there is little empirical evidence

of the effectiveness of workplace EI interventions based on the ability model. As such, this is an area that would benefit greatly from future research. In the meantime, evidence that emotional skills can be learned has been accumulating in educational settings (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011), to which we now turn our attention.

### Emotions and EI in Educational Settings

Similar to traditional views of emotions in the workplace, historically, emotions were thought to have no place in the classroom (Sutton & Wheatley, 2003). Still today, many educators see the expression of emotion as juvenile, unprofessional, or uncivilized, and the suppression of emotion as mature, professional, and sophisticated (Ashforth & Humphrey, 1995). Yet, neuroscientific evidence demonstrates that affective and cognitive processes are integrated (Dolan, 2002). Emotions focus attention (Compton, 2003); drive decision making (Damasio, 1994); and impact perception, motivation, critical thinking, and behavior (Lazarus, 1991; Mayer & Salovey, 1997). These relationships between affect and cognition have important implications for the significance of EI in the classroom.

Teaching is considered one of the most emotionally demanding professions (Hargreaves, 2000). Throughout the day, as they plan lessons, instruct, grade student work, and attend meetings with parents and staff, teachers experience a range of pleasant and unpleasant emotions (Sutton & Wheatley, 2003). Teachers report feeling enthusiasm, pride, and satisfaction when witnessing student success or receiving support from parents, administrators, and other teachers (Emmer, 1994). They report feeling angry or frustrated with misbehaving or failing students (Reyna & Weiner, 2001), uncooperative colleagues and administrators (Bullough, Knowles, & Crow, 1991), irresponsible or uncaring parents (Lasky, 2000), and themselves when they feel unable to achieve their goals (Liljestrom, Roulston, & deMarrais, 2007). They experience guilt when feeling ineffective in their teaching roles (Hargreaves & Tucker, 1991), anxiety from the uncertainties and complexities of teaching (Sutton & Wheatley, 2003),

and disillusionment with the teaching field (Huberman, 1993).

If not managed well, the negative emotions teachers experience can contaminate the classroom dynamic and hinder student learning (Travers, 2001). The abilities to perceive, use, understand, and regulate emotions are integral to effective teaching (Hargreaves, 2001). In fact, emotion regulation ability among teachers has been associated with positive affect, principal support, job satisfaction, and feelings of personal accomplishment (Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010). Teachers with higher EI can create a more supportive, stable, and productive classroom environment—one that encourages learning and achievement among students.

In addition to teacher EI, student EI can impact the learning environment in various ways. Children with higher EI skills tend to experience higher academic achievement than children with lower EI skills (Eisenberg, Fabes, Guthrie, & Reiser, 2000; Gil-Orlarte Marquez, Palomera Martin, & Brackett, 2006). The ability to regulate emotions can help students focus in class, adapt to the school environment, and deal with academic anxiety (Lopes & Salovey, 2004; Mestre, Guil, Lopes, Salovey, & Gil-Orlarte, 2006). Students with higher EI also tend to behave less aggressively and more prosocially at school, and they tend to be more secure and popular (Denham et al., 2003; Nellum-Williams, 1997; Rubin, 1999). Lower EI has been linked to poor physical and psychological health (Southam-Gerow & Kendall, 2000), alcohol and tobacco use (Trinidad & Johnson, 2002), anxiety and depression (e.g., Rottenberg, Kasch, Gross, & Gotlib, 2002), impulsive and aggressive behavior (Brackett, Mayer, & Warner, 2004; Winters, Clift, & Dutton, 2004), and suicidal ideation and attempts (Cha & Nock, 2009). In contrast, students who can recognize emotions accurately interact more positively with others (Izard et al., 2001). Additionally, children skilled in communicating their emotions tend to adhere well to societal rules and cultural norms for expressing how they feel (Saarni, 1999). When students have the ability to develop quality relationships with their teachers and peers, they feel more comfortable at school, receive more support, and form healthier attachments to school (Agos-

tin & Bain, 1997; O'Neil, Welsh, Parke, Wang, & Strand, 1997).

Though copious research lends support for the role of EI in educational settings, until recently, there has been no systematic approach to developing these crucial life skills in teachers or students. Providing training in EI to both educators and students is one way to assure that student learning and achievement are optimized (Salovey & Sluyter, 1997; Zins, Weissberg, Wang, & Walberg, 2004).

### The RULER Approach: A School-Based Intervention for Enhancing EI

Although the traditional emphasis in schools has been on academic instruction, the last few decades have seen growing efforts toward a more holistic approach that incorporates the social and emotional aspects of learning. In the early 1990s, the field of social and emotional learning was introduced as a framework for providing opportunities for young people to acquire the skills necessary for attaining and maintaining personal well-being and positive relationships across the lifespan (see Elbertson, Brackett, & Weissberg, 2010). Working within this framework, a school-based program grounded in the ability model of EI was developed. This program, The RULER Approach ("RULER"), is based on decades of research evidencing that the knowledge and skills associated with recognizing, understanding, labeling, expressing, and regulating emotion (i.e., the RULER skills) are essential to teaching, learning, and positive development in both students and adults (Brackett et al., 2009; Rivers & Brackett, 2011).

RULER focuses on the development of these EI skills in both the adult stakeholders in students' education (i.e., teachers, parents, administrators, and other school staff) as well as the students themselves. First, adults are educated on the role of emotion skills in enhancing their relationships at school and the educational, social, and personal lives of their students. Adults develop their own EI and learn how to foster an emotionally supportive learning environment through the use of program tools, including collaborative mission statements for learning environments and visual aids such as the "Mood



Meter” for enhancing self-awareness and emotion regulation (Brackett, Elbertson, Alster, Kremenitzer, & Caruso, 2011). Then, classroom teachers are trained on the Feeling Words Curriculum for students, a vocabulary-based program aimed at helping children from kindergarten through eighth grade acquire EI. This curriculum helps children develop a sophisticated understanding of terms such as *alienation*, *commitment*, *elation*, and *empathy* (see Brackett et al., 2011, for a review of the lesson plans). These feeling words are the vehicle by which children learn to identify, evaluate, and understand their own and others’ feelings and behavior, and to develop strategies for managing the emotions they experience in their daily lives.

RULER improves both academic outcomes and the social and emotional climate of classrooms. In a recent clustered, randomized control trial in 62 schools, classrooms that implemented RULER, as compared to standard-of-care classrooms, were rated as more emotionally supportive using an objective measurement tool, the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008). Specifically, RULER classrooms were rated by trained, naïve coders as having (1) higher degrees of warmth and connectedness between teachers and students, (2) teachers who focused more on students’ interests, and (3) more autonomy and leadership among students. Classrooms using RULER also had more positive learning climates, including more respectful interactions, more prosocial behavior, greater enthusiasm about learning, and fewer occurrences of bullying. Teachers in classrooms using RULER, as compared to control classrooms, also expressed anger and frustration less frequently and were more supportive of students (Reyes, Brackett, Rivers, White, & Salovey, 2012). In a separate study, students in classrooms integrating RULER had higher year-end grades and higher teacher ratings of social and emotional competence (e.g., leadership, social skills, and study skills) compared to students in the comparison classrooms (Brackett, Rivers, Reyes, & Salovey, 2012). Moreover, teachers who implemented RULER with greater quality had students with higher scores on indices of social competencies and EI, as measured by the MSCEIT (Reyes, Brackett, Rivers, Elb-

ertson, & Salovey, 2012). Finally, a recent study showed that after just 1 year, students in RULER classrooms showed greater growth in MSCEIT scores than students in comparison classrooms (Reyes, Brackett, & Rivers, 2011). Together, these findings suggest that RULER enhances students’ social and emotional skills as well as classrooms in ways that can promote positive student and teacher development.

### Limitations and Future Directions in EI Research

Much remains to be investigated about EI. Most important are necessary developments in the measurement of EI, high-quality theorizing on its development, and further research on the outcomes associated with the construct (Mayer, Salovey, & Caruso, 2008). In regard to measurement, the MSCEIT, which was the first omnibus, performance test of EI, has a number of limitations (see Rivers, Brackett, & Salovey, 2008). For example, the factor structure of the test has not been replicated across studies (Palmer, Gignac, Manocha, & Stough, 2005). The MSCEIT also does not allow for the assessment of several abilities, especially the higher-order skills specified in the Mayer and Salovey (1997) model, including the expression of emotion in the voice and body (e.g., posture) and the ability to monitor and reflect on one’s own emotions. Designing measures of these and other, more fluid abilities will require innovative methods. Possibilities include lab-based experiments examining people’s real-time behavior after various mood inductions and interactions that mimic real-life encounters in virtual environments, among many others.

On the topic of enhancing EI theory and studies on its outcomes, greater attention should be paid to developmental trajectories, gender and cultural differences, and how EI operates and can be nurtured in workplace and educational settings. Some specific, unanswered research questions include: Do certain EI abilities, such as the language of emotion, influence the development of other EI abilities, such as the perception and management of emotion? Are growth trajectories in EI, across each branch, the same for both males and females? Are interven-

tions universally applicable to both genders? These and many other important questions present exciting opportunities to expand EI research.

## Conclusion

The recent decades have unearthed the dynamic and complex relationship between emotion and cognition, bringing to light the importance of EI in harnessing the power of emotion to optimize cognition. Although much about EI is yet to unfold, the research conducted thus far supports a model of EI that defines the construct as a mental ability that is separable from both personality and general intelligence and that is assessed best by performance measures that predict well-being and other significant outcomes in both workplace and educational settings. Findings so far indicate that attention to emotion-related aspects of working and learning environments, and a focus on bolstering the EI skills of individuals within these contexts, can contribute to more productive, supportive, and healthy professional and academic experiences.

## References

- Agostin, R. M., & Bain, S. K. (1997). Predicting early school success with development and social skills screeners. *Psychology in the Schools*, 34, 219–228.
- Ashforth, B. E., & Humphrey, R. H. (1995). Emotion in the workplace: A reappraisal. *Human Relations*, 48, 97–125.
- Ashton-James, C. E., & Ashkanasy, N. M. (2008). Affective events theory: A strategic perspective. In W. J. Zerbe, C. E. J. Hartel, & N. M. Ashkanasy (Eds.), *Research on emotion in organizations: Vol. 4. Emotion, ethics, and decision-making* (pp. 1–34). Bingley, UK: Emerald Group/JAI Press.
- Bar-On, R. (2006). The Bar-On model of emotional–social intelligence (ESI). *Psicothema*, 18(Suppl.), 13–25.
- Barsade, S. G., Brief, A. P., & Spataro, S. E. (2003). The affective revolution in organizational behavior: The emergence of a paradigm. In J. Greenberg (Ed.), *Organizational behavior: The state of the science* (2nd ed., pp. 3–51). Mahwah, NJ: Erlbaum.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Erlbaum.
- Bower, G. H. (1981). Mood and memory. *American Psychologist*, 36, 129–148.
- Boyatzis, R., & Sala, F. (2004). The Emotional Competency Inventory (ECI). In G. Geher (Ed.), *Measuring emotional intelligence: Common ground and controversy* (pp. 143–178). Hauppauge, NY: Nova Science.
- Brackett, M. A., Elbertson, N., Alster, B., Kremenitzer, J. P., & Caruso, D. (2011). Emotionally literate teaching. In M. A. Brackett & J. P. Kremenitzer, with M. Maurer, M. Carpenter, S. E. Rivers, & N. Elbertson (Eds.), *Creating emotionally literate classrooms: An introduction to The RULER Approach to social and emotional learning* (pp. 49–68). Port Chester, NY: National Professional Resources.
- Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin*, 29, 1147–1158.
- Brackett, M. A., Mayer, J. D., & Warner, R. M. (2004). Emotional intelligence and its relation to everyday behaviour. *Personality and Individual Differences*, 36, 1387–1402.
- Brackett, M. A., Palomera, R., Mojsa-Kaja, J., Reyes, M. R., & Salovey, P. (2010). Emotion-regulation ability, burnout, and job satisfaction among British secondary-school teachers. *Psychology in the Schools*, 47, 406–417.
- Brackett, M. A., Patti, J., Stern, R., Rivers, S. E., Elbertson, N., Chisholm, C., et al. (2009). A sustainable, skill-based model to building emotionally literate schools. In R. Thompson, M. Hughes, & J. B. Terrell (Eds.), *Handbook of developing emotional and social intelligence: Best practices, case studies, and tools* (pp. 329–358). New York: Wiley.
- Brackett, M. A., Rivers, S. E., Reyes, M. R., & Salovey, P. (2012). Enhancing academic performance and social and emotional competence with the RULER Feeling Words Curriculum. *Learning and Individual Differences*, 22, 218–224.
- Brackett, M. A., Rivers, S. E., Shiffman, S., Lerner, N., & Salovey, P. (2006). Relating emotional abilities to social functioning: A comparison of self-report and performance measures of emotional intelligence. *Journal of Personality and Social Psychology*, 91, 780–795.

- Bullough, R. V., Jr., Knowles, J. G., & Crow, N. A. (1991). *Emerging as a teacher*. London: Routledge.
- Cha, C., & Nock, M. (2009). Emotional intelligence is a protective factor for suicidal behavior. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48, 422–430.
- Cherniss, C. (2010). Emotional intelligence: Toward clarification of a concept. *Industrial and Organizational Psychology*, 3, 110–126.
- Ciarrochi, J., Chan, A. Y. C., & Bajgar, J. (2001). Measuring emotional intelligence in adolescents. *Personality and Individual Differences*, 31, 1105–1119.
- Ciarrochi, J. V., Chan, A. Y. C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences*, 28, 539–561.
- Compton, R. (2003). The interface between emotion and attention: A review of evidence from psychology and neuroscience. *Behavioral and Cognitive Neuroscience Reviews*, 2, 115–129.
- Côté, S., Lopes, P. N., Salovey, P., & Miners, C. T. H. (2010). Emotional intelligence and leadership emergence in small groups. *Leadership Quarterly*, 21, 496–508.
- Côté, S., & Miners, C. T. H. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly*, 51, 1–28.
- Damasio, A. R. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: Grosset/Putnam.
- Daus, C. S., & Ashkanasy, N. M. (2003). Will the real emotional intelligence please stand up?: On deconstructing the emotional intelligence “debate.” *Industrial-Organizational Psychologist*, 41, 69–72.
- Day, A. L., & Carroll, S. A. (2004). Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviours. *Personality and Individual Differences*, 36, 1443–1458.
- Day, A. L., & Carroll, S. A. (2008). Faking emotional intelligence (EI): Comparing response distortion on ability and trait-based EI measures. *Journal of Organizational Behavior*, 29, 761–784.
- Denham, S. A., Blair, K. A., DeMulder, E., Levitas, J., Sawyer, K., Auerbach-Major, S., et al. (2003). Preschool emotional competence: Pathway to social competence. *Child Development*, 74, 238–256.
- Dolan, R. J. (2002). Emotion, cognition, and behavior. *Science*, 298, 1191–1194.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82, 405–432.
- Eisenberg, N., Fabes, R. A., Guthrie, I. K., & Reiser, M. (2000). Dispositional emotionality and regulation: Their role in predicting quality of social functioning. *Journal of Personality and Social Psychology*, 78, 136–157.
- Elbertson, N. A., Brackett, M. A., & Weissberg, R. P. (2010). School-based social and emotional learning (SEL) programming: Current perspectives. In A. Hargreaves, M. Fullan, D. Hopkins, & A. Lieberman (Eds.), *The second international handbook of educational change* (pp. 1017–1032). New York: Springer.
- Emmer, E. T. (1994). Toward an understanding of the primary of classroom management and discipline. *Teaching Education*, 6, 65–69.
- Feldman Barrett, L., Gross, J., Christensen, T. C., & Benvenuto, M. (2001). Knowing what you're feeling and knowing what to do about it: Mapping the relation between emotion differentiation and emotion regulation. *Cognition and Emotion*, 15, 713–724.
- Feyerherm, A. E., & Rice, C. L. (2002). Emotional intelligence and team performance: The good, the bad and the ugly. *International Journal of Organizational Analysis*, 10, 343–362.
- Fisher, C. D. (2000). Mood and emotions while working: Missing pieces of job satisfaction? *Journal of Organizational Behavior*, 21, 185–202.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin*, 117, 39–66.
- Forgas, J. P., & George, J. M. (2001). Affective influences on judgments and behavior in organizations: An information processing perspective. *Organizational Behavior and Human Decision Processes*, 86, 3–34.
- Forgas, J. P., & Moylan, S. J. (1991). Affective influences on stereotype judgements. *Cognition and Emotion*, 5, 379–395.
- Gardner, H. (1993). *Frames of mind: The theory of multiple intelligences (10th Anniversary Edition)*. New York: Basic Books. (Original work published 1983)
- George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human Relations*, 53, 1027–1055.

- Gil-Olarte Marquez, P., Palomera Martin, R., & Brackett, M. A. (2006). Relating emotional intelligence to social competence and academic achievement in high school students. *Psicothema*, 18, 118–123.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2, 271–299.
- Gross, J. J., & John, O. P. (2002). Wise emotion regulation. In L. Feldman Barrett & P. Salovey (Eds.), *The wisdom in feeling: Psychological processes in emotional intelligence* (pp. 297–319). New York: Guilford Press.
- Hargreaves, A. (2000). Mixed emotions: Teachers' perceptions of their interactions with students. *Teaching and Teacher Education*, 16, 811–826.
- Hargreaves, A. (2001). The emotional geographies of teachers' relations with colleagues. *International Journal of Educational Research*, 35, 503–527.
- Hargreaves, A., & Tucker, E. (1991). Teaching and guilt: Exploring the feelings of teaching. *Teaching and Teacher Education*, 7, 491–505.
- Hochschild, A. R. (1979). Emotion work, feeling rules, and social structure. *American Journal of Sociology*, 85, 551–575.
- Howell, J. M., & Avolio, B. J. (1993). Transformational leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidated-business-unit performance. *Journal of Applied Psychology*, 78, 891–902.
- Huberman, M. (1993). Steps toward a developmental model of the teaching career. In L. Kremer-Hayon, H. C. Vonk, & R. Fessler (Eds.), *Teacher professional development: A multiple perspective approach* (pp. 93–118). Amsterdam: Swets & Zeitlinger.
- Humphrey, R. H. (2002). The many faces of emotional leadership. *Leadership Quarterly*, 13, 493–504.
- Isen, A. M., Shalker, T. E., Clark, M., & Karp, L. (1978). Affect, accessibility of material in memory, and behavior: A cognitive loop? *Journal of Personality and Social Psychology*, 36, 1–12.
- Izard, C. E., Fine, S., Schultz, D., Mostow, A., Ackerman, B., & Youngstrom, E. (2001). Emotion knowledge as a predictor of social behavior and academic competence in children at risk. *Psychological Science*, 12, 18–23.
- Jausovec, N., & Jausovec, K. (2005). Differences in induced gamma and upper alpha oscillations in the human brain related to verbal/performance and emotional intelligence. *International Journal of Psychophysiology*, 56, 223–235.
- Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of Applied Psychology*, 95, 54–78.
- Kerr, R., Garvin, J., Heaton, N., & Boyle, E. (2006). Emotional intelligence and leadership effectiveness. *Leadership Organization Development Journal*, 27, 265–279.
- Kuhnert, K. W., & Lewis, P. (1987). Transactional and transformational leadership: A constructive developmental analysis. *Academy of Management Review*, 12, 648–657.
- Lasky, S. (2000). The cultural and emotional politics of teacher–parent interactions. *Teaching and Teacher Education*, 16, 843–860.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Leban, W., & Zulauf, C. (2004). Linking emotional intelligence abilities and transformational leadership styles. *Leadership Organization Development Journal*, 25, 554–564.
- Lefford, A. (1946). The influence of emotional subject matter on logical reasoning. *Journal of General Psychology*, 34, 127–151.
- Liljestrom, A., Roulston, K., & deMarrais, K. (2007). “There is no place for feeling like this in the workplace”: Women teachers' anger in school settings. In P. A. Schutz & R. Pekrun (Eds.), *Emotion in education* (pp. 275–292). San Diego, CA: Elsevier.
- Lindebaum, D. (2009). Rhetoric or remedy?: A critique on developing emotional intelligence. *Academy of Management Learning Education*, 8, 225–237.
- Lloyd, A. C. (1979). Emotion and decision in stoic psychology. In J. M. Rist (Ed.), *The stoics* (pp. 233–246). Los Angeles: University of California Press.
- Lopes, P. N., Grewal, D., Kadis, J., Gall, M., & Salovey, P. (2006). Evidence that emotional intelligence is related to job performance and affect and attitudes at work. *Psicothema*, 18(Suppl.), 132–138.
- Lopes, P. N., & Salovey, P. (2004). Toward a broader education: Social, emotional, and practical skills. In J. E. Zins, R. P. Weissberg,



- M. C. Wang, & H. J. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (pp. 76–93). New York: Teachers College Press.
- Lyons, W. (1999). The philosophy of emotion and cognition. In T. Dalgleish & M. J. Power (Eds.), *Handbook of cognition and emotion* (pp. 21–44). Chichester, UK: Wiley.
- Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27, 267–298.
- Mayer, J. D., Caruso, D. R., & Salovey, P. (2000). Selecting a measure of emotional intelligence: The case for ability scales. In R. Baron & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 320–342). San Francisco: Jossey-Bass.
- Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human abilities: Emotional intelligence. *Annual Review of Psychology*, 59, 507–536.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–34). New York: Basic Books.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2000). Emotional intelligence as zeitgeist, as personality, and as a mental ability. In R. Baron & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 92–117). San Francisco: Jossey-Bass.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2002). *The Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT), Version 2.0*. Toronto: Multi-Health Systems.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional intelligence: New ability or eclectic traits? *American Psychologist*, 63, 503–517.
- Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion*, 3, 97–105.
- Mestre, J. M., Guil, R., Lopes, P. N., Salovey, P., & Gil-Olarte, P. (2006). Emotional intelligence and social and academic adaptation to school. *Psicothema*, 18(Suppl.), 112–117.
- Miguel-Tobal, J. J., & Gonzales Ordi, H. (2005). The role of emotions in cardiovascular disorders. In A. S. G. Antoniou & C. L. Cooper (Eds.), *Research companion to organizational health psychology* (pp. 455–477). Cheltenham, UK: Edward Elgar.
- Mikolajczak, M., Luminet, O., Leroy, C., & Roy, E. (2007). Psychometric properties of the Trait Emotional Intelligence Questionnaire: Factor structure, reliability, construct, and incremental validity in a French-speaking population. *Journal of Personality Assessment*, 88, 338–353.
- Mills, L. B. (2009). A meta-analysis of the relationship between emotional intelligence and effective leadership. *Journal of Curriculum and Instruction*, 3, 22–38.
- Mueller, J. S., & Curhan, J. R. (2006). Emotional intelligence and counterpart mood induction in a negotiation. *International Journal of Conflict Management*, 17, 110–128.
- Nellum-Williams, R. (1997). Educator's commentary. In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence* (pp. 164–167). New York: Basic Books.
- Nowicki, S., & Duke, M. P. (1994). Individual differences in the nonverbal communication of affect: The Diagnostic Analysis of Nonverbal Accuracy Scale. *Journal of Nonverbal Behavior*, 18(1), 9–35.
- O'Boyle, E. H., Humphrey, R. H., Pollack, J. M., Hawver, T. H., & Story, P. A. (2010). The relation between emotional intelligence and job performance: A meta-analysis. *Journal of Organizational Behavior*, 32, 788–818.
- O'Neil, R., Welsh, M., Parke, R. D., Wang, S., & Strand, C. (1997). A longitudinal assessment of the academic correlates of early peer acceptance and rejection. *Journal of Clinical Child Psychology*, 26, 290–303.
- Palmer, B. R., Gignac, G., Manocha, R., & Stough, C. (2005). A psychometric evaluation of the Mayer–Salovey–Caruso Emotional Intelligence Test Version 2.0. *Intelligence*, 33, 285–305.
- Paulhus, D. L., Lysy, D. C., & Yik, M. S. M. (1998). Self-report measures of intelligence: Are they useful as proxy IQ tests? *Journal of Personality*, 66, 525–554.
- Petrides, K. V., & Furnham, A. (2003). Trait emotional intelligence: Behavioural validation in two studies of emotion recognition and reactivity to mood induction. *European Journal of Personality*, 17, 39–57.
- Petrides, K. V., Furnham, A., & Mavroveli, S.



- (2007). Trait emotional intelligence: Moving forward in the field of EI. In G. Matthews, M. Zeidner, & R. Roberts (Eds.), *Emotional intelligence: Knowns and unknowns* (pp. 151–166). Oxford, UK: Oxford University Press.
- Pianta, R. C., La Paro, K., & Hamre, B. (2008). *Classroom assessment scoring system: K–3*. Baltimore, MD: Brookes.
- Reyes, M. R., Brackett, M. A., & Rivers, S. E. (2011, April). *Longitudinal impact of the RULER approach on students' emotional literacy skills, social competence, and academic performance*. Paper presented at the annual meeting of the Society for Research in Child Development, Montreal, Canada.
- Reyes, M. R., Brackett, M. A., Rivers, S. E., Elbertson, N., & Salovey, P. (2012). The interaction effects of program training, dosage, and implementation quality on targeted student outcomes for The RULER Approach to social and emotional learning. *School Psychology Review*, 41, 82–99.
- Reyes, M. R., Brackett, M. A., Rivers, S. E., White, M., & Salovey, P. (2012). Classroom emotional climate, student engagement, and academic achievement. *Journal of Educational Psychology*, 104, 700–712.
- Reyna, C., & Weiner, B. (2001). Justice and utility in the classroom: An attributional analysis of the goals of teachers' punishment and intervention strategies. *Journal of Educational Psychology*, 93, 309–319.
- Rivers, S. E., & Brackett, M. A. (2011). Achieving standards in the English language arts (and more) using the RULER Approach to social and emotional learning. *Reading and Writing Quarterly*, 27, 75–100.
- Rivers, S. E., Brackett, M. A., Omori, M., Sickler, C., Bertoli, M., & Salovey, P. (in press). Emotion skills as a protective factor for risky behaviors among college students. *Journal of College Student Development*.
- Rivers, S. E., Brackett, M. A., & Salovey, P. (2008). Measuring emotional intelligence as a mental ability in adults and children. In G. Boyle, G. Matthews, & D. Saklofske (Eds.), *The Sage handbook of personality theory and assessment* (Vol. 2, pp. 440–460). Thousand Oaks, CA: Sage.
- Rivers, S. E., Brackett, M. A., Salovey, P., & Mayer, J. D. (2007). Measuring emotional intelligence as a set of mental abilities. In G. Matthews, M. Zeidner, & R. D. Roberts (Eds.), *The science of emotional intelligence* (pp. 230–257). New York: Oxford University Press.
- Rosete, D. (2007). *Does emotional intelligence play an important role in leadership effectiveness?* Unpublished doctoral dissertation, University of Wollongong, Wollongong, New South Wales, Australia.
- Rosete, D., & Ciarrochi, J. (2005). Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness. *Leadership and Organization Development Journal*, 26, 388–399.
- Rottenberg, J., Kasch, K. L., Gross, J. J., & Gotlib, I. H. (2002). Sadness and amusement reactivity differentially predict concurrent and prospective functioning in major depressive disorder. *Emotion*, 2, 135–146.
- Rubin, M. M. (1999). *Emotional intelligence and its role in mitigating aggression: A correlational study of the relationship between emotional intelligence and aggression in urban adolescents*. Unpublished dissertation, Immaculata College, Immaculata, PA.
- Rubin, R. S., Munz, D. C., & Bommer, W. H. (2005). Leading from within: The effects of emotion recognition and personality on transformational leadership behavior. *Academy of Management Journal*, 48, 845–858.
- Saarni, C. (1999). *The development of emotional competence*. New York: Guilford Press.
- Sala, F. (2002). *Emotional Competence Inventory: Technical manual*. Philadelphia: McClelland Center for Research and Innovation, Hay Group.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9, 185–211.
- Salovey, P., & Sluyter, D. J. (Eds.). (1997). *Emotional development and emotional intelligence: Educational implications*. New York: Basic Books.
- Schutte, N. S., Malouff, J. M., Simunek, M., McKenley, J., & Hollander, S. (2002). Characteristic emotional intelligence and emotional well-being. *Cognition and Emotion*, 16, 769–785.
- Southam-Gerow, M. A., & Kendall, P. C. (2000). Cognitive-behaviour therapy with youth: Advances, challenges, and future directions. *Clinical Psychology and Psychotherapy*, 7, 343–366.
- Sternberg, R. J. (1985). *The triarchic mind: A new theory of human intelligence*. New York: Penguin.

- Sutton, R. E., & Wheatley, K. F. (2003). Teachers' emotions and teaching: A review of the literature and directions for future research. *Educational Psychology Review*, 15, 327–358.
- Travers, C. J. (2001). Stress in teaching: Past, present, and future. In J. Dunham (Ed.), *Stress in the workplace: Past, present, and future* (pp. 130–163). Philadelphia: Whurr.
- Trinidad, D. R., & Johnson, C. A. (2002). The association between emotional intelligence and early adolescent tobacco and alcohol use. *Personality and Individual Differences*, 32, 95–105.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Research in Organizational Behavior*, 18(Suppl. 1), 1–74.
- Winters, J., Clift, R. J. W., & Dutton, D. G. (2004). An exploratory study of emotional intelligence and domestic abuse. *Journal of Family Violence*, 19, 255–267.
- Young, P. T. (1943). *Emotion in man and in animal: Its nature and relation to attitude and motive*. New York: Wiley.
- Zeidner, M., Roberts, R. D., & Matthews, G. (2004). The emotional intelligence bandwagon: Too fast to live, too young to die? *Psychological Inquiry*, 15, 239–248.
- Zins, J. E., Weissberg, R. P., Wang, M. C., & Walberg, H. J. (Eds.). (2004). *Building academic success on social and emotional learning: What does the research say?* New York: Teachers College Press.